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November 6, 2019

**VIA ELECTRONIC FILING**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

**Re: WT Docket No. 17-200  
*Ex Parte* Presentation**

Dear Ms. Dortch:

On November 4, 2019, Christopher Guttman-McCabe of CGM Advisors, LLC, consultant to Anterix, Inc. (“Anterix”), and undersigned counsel to Anterix met in person or by telephone with the Wireless Telecommunications Bureau staff listed below.

The Anterix representatives discussed the status of the five experimental applications that have been granted to parties, including Anterix, to test a variety of use cases that could be addressed on 900 MHz private LTE systems. The attached summary of those authorizations was provided to the staff. The Anterix representatives described the status of the National Renewal Energy Laboratory (“NREL”) project that, using the Anterix experimental license, has completed Phase 1, which focused on evaluating private LTE capabilities in relation to the disconnection of distributed energy resources (“DERs”), including circuits that control power lines. Phase 2 will use NREL’s advanced distribution management systems (“ADMS”) testbed to evaluate both capabilities implicated by additional use cases as well as end-to-end ADMS application use cases. The Department of Energy has classified this project as a High-Impact project. They also discussed the continued growth of the Utility Broadband Alliance (“UBBA”), which attracted 150 attendees to its first annual summit hosted by Southern Company at its Alabama Power facility in Birmingham, Alabama, where attendees were able to see Southern Linc’s private LTE network in operation. This level of participation is further evidence of the utility industry’s urgent need for such networks in their grid modernization efforts.

The Anterix representatives described the private LTE ecosystem that the company is focused on providing for the benefit of utilities, other critical industries, and private enterprise users generally. Redeploying the underutilized 900 MHz band through broadband leasing arrangements would provide economies of scale and mutual aid opportunities that have not been available to this vital segment of the telecommunications community.

While the experimental projects are designed to test private LTE technical capabilities and use cases, the Anterix representatives explained that there is an extensive notice condition associated with the experimental licenses, and no complaints of interference have been registered. They also noted Southern Linc's successful migration of its operations from narrowband iDEN technology to a 3/3 megahertz LTE channel, an undertaking that required it to run both technologies simultaneously for some period, also without experiencing interference. Preliminary reports also indicate that Southern Linc's operation of a 3/3 megahertz LTE channel at 898-901/937-940 MHz did not interfere with its facilities on the immediately adjacent 901-902/940-941 Sensus spectrum. The Anterix representatives also stated that there are tools commonly used in the wireless industry to address potential interference problems in advance or to manage any situations that might arise. These include prior notification to potentially affected parties in advance of system deployment; co-location of facilities when possible; additional filtering; modification of antenna characteristics and/or power levels; deployment of upgraded or additional facilities for the affected party; and migration of the affected operation to a different communications system.

The Anterix representatives reminded the staff that Anterix has noted in its filings that the 3GPP Standards require all LTE carriers to conform to a carrier center in integer multiples of 100 kHz, i.e., 938.0000, 938.1000, 938.2000 MHz, etc. The FCC's broadband segment would result in a carrier center of 938.00625 MHz. Conforming to the standard will require a center channel of 938.0000 MHz, requiring channel 120 to be included in the proposed broadband segment.

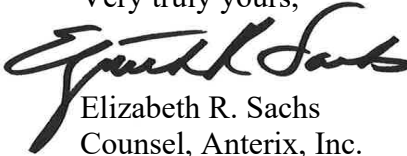
The parties then discussed the "success threshold" proposed in the NPRM, including the timing for initiating the voluntary negotiations process and the period within which success would be measured. The Anterix representatives referred the staff to Attachment A to its July 2, 2019 Reply Comments in the proceeding, in which Anterix proposed a rule addressing this timing issue. Upon review, Anterix suggests that the FCC consider the minor revisions to that proposed rule shown on the attached version.

The Anterix representatives reported that they are engaged in discussion with Gogo, Inc. in response to that entity's September 11, 2019 *ex parte* filing in this proceeding. Gogo has provided certain technical information about the basis for its interference concerns, which Anterix is reviewing. Both parties are eager to address the issue as promptly as possible.

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This letter is being filed electronically, in accordance with Section 1.1206(b) of the Commission's Rules, 47 C.F.R. § 1.1206(b), for inclusion in the record in this proceeding.

Kindly refer any questions or correspondence regarding this matter to the undersigned.

Very truly yours,  
  
Elizabeth R. Sachs  
Counsel, Anterix, Inc.

Attachments

cc (via email):  
Joel Taubenblatt  
Kari Hicks  
Roger Noel  
Lloyd Coward  
Amanda Huetnick (participated by phone)  
Jessica Quinley  
Moslem Sawez  
Jaclyn Rosen

## **900 MHz Broadband Experimental Licenses**

1) Licensee: Ameren Services Company

Call Sign: WJ2XMH

Issue Date: May 10, 2018

Broadband Test Site: Washington, IL (near Peoria)

Frequencies Tested: 937.8 - 939.2 MHz Paired with 898.8 – 900.2 MHz (1.4 MHz wide)

Use Cases:

To test the use of a private LTE network for AMI or AMI backhaul, distribution and gas system sensors and controls, substation backhaul, and monitoring and control of customer-owned distributed energy inverters. The applications at these sites include, SCADA, remote engineering access, WiFi, telephony, push-to-talk, and general workforce mobility applications. The testing will also be a “proof of concept” opportunity, to determine whether LTE data speeds and capacity can support the important fixed field-area functions and applications that are currently conducted on narrowband systems or on legacy copper-based circuits that may be de-constructed.

2) Licensee: Southern Linc

Call Sign: WJ2XUY

Issue Date: November 7, 2018

Broadband Test Sites: Dadeville, Tallassee and Camp Hill, AL

Frequencies Tested: 937.0 - 940.0 MHz Paired with 898.0 – 901.0 MHz (3 MHz wide)

Use Cases: To test the capacity and latency for various applications and use cases in support of electric and gas utility operations, including, but not limited to, AMI backhaul, SCADA, remote engineering access, telephony, push-to-talk, fault monitoring, and general workforce mobility applications. In addition, this testing is intended to confirm whether such operations may be conducted in the 900 MHz band without causing interference to systems operating in adjacent spectrum bands.

3) Licensee: PDV Spectrum Holding Company

Call Sign: WJ2XYW

Issue Date: February 14, 2019

Broadband Test Site: National Renewable Energy Labs, Golden, CO (Indoors Only)

Frequencies Tested: 936.6-939.6 MHz Paired with 897.6 – 900.6 MHz (3 MHz wide)

Use Cases: To evaluate the performance of real LTE wireless communications systems in active grid control scenarios (i.e. latency and packet loss under various communications congestion conditions) to define and de-risk the overall integrated ADMS + communications systems being installed across the country.

4) Licensee: Delmarva Power & Light Company

Call Sign: WK2XMJ

Issue Date: October 15, 2019

Broadband Test Sites: Salisbury, MD

Frequencies Tested: 936.5 - 939.5 MHz Paired with 897.5 – 900.5 MHz (3 MHz wide)

Use Cases: Delmarva Power is exploring the use of a private LTE network in the 900 MHz band for electric distribution and gas system sensors and controls, substation backhaul, and monitoring, AMI or AMI backhaul and control of customer-owned distributed energy inverters. Applications at these sites may include distribution automation, SCADA, remote engineering access, WiFi, telephony, push-to-talk, and general workforce mobility applications. Testing to ensure the use cases without causing interference to systems operating on spectrum adjacent to the proposed 900 MHz allocations in the license. (testing not begun)

5) Licensee: United Parcel Service, Inc.

Call Sign: WK2XNK

Issue Date: October 21, 2019

Broadband Test Sites: Billings, MT

Frequencies Tested: 937.3 - 938.7 MHz Paired with 898.3 – 899.7 MHz (1.4 MHz wide)

Use Cases: To document the relative coverage and performance differences between this Band 8 deployment on the Anterix spectrum and the CBRS overlay operating in Band 48, and to confirm the ability to operate a co-site Band 8 / Band 48 (CBRS) using common LTE core infrastructure, and allowing client roaming between the two RF networks. (testing not begun)

§ 27.1509

(b) *Broadband Service Clearing Threshold.* A prospective broadband licensee may initiate a voluntary negotiation period by sending written notification to all covered incumbents in the county with which it does not already have an agreement, with a copy to the Commission. Once the prospective broadband licensee has reached voluntary agreements with covered incumbents whose licenses, together with spectrum held in inventory by the FCC, represent the percentage of channels within the 900 MHz Broadband Service specified below, any remaining covered incumbent is subject to mandatory relocation in accordance with the following provisions:

(1) Mandatory relocation trigger:

(A) 90% of the channels within the 900 MHz Broadband Service at any time within one year of the initiation of the voluntary negotiation period; or

(B) 80% of the channels within the 900 MHz Broadband Service at any time within two years of the initiation of the voluntary negotiation period.

(2) A prospective broadband licensee that has reached the percentage in subsections (b)(1) (A) or (B) above may file an application for a 900 MHz BB license, which application is exempt from subsections (a)(2) (1)-(3) above with regard to remaining covered incumbents (except those with complex systems as defined in § 27.\_\_\_\_ of this chapter), and shall also provide written notification to any remaining covered incumbent of the initiation of the mandatory relocation period.

(3) The applicant and any covered incumbent shall have one year to negotiate a mandatory relocation agreement. Both parties are obligated to negotiate in good faith. If no agreement is reached within one year:

(A) either party may request resolution by the Chief, Wireless Telecommunications Bureau; or

(B) the Commission may conduct an auction to assign the rights to the 900 MHz BB license in that county, consistent with applicable Commission rules.